

Cement Industry in Saudi Arabia during (2009 – 2012) : Supply and Demand Analysis

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Abstract

The growth of mega projects in Saudi Arabia due to the overflow public budget is considered as major catalyst for cement industry . However, governmental rules contribute critically in monitoring and controlling in cement prices . So, companies can not raise prices even if different factors appear. In this paper, three cement companies are selected as samples of the sector: Southern Cement, Yamamah and Arabian Cement which analyzed by look to supply and demand side with their determinants during (2009 - 2012) by applying the law of supply and the law of demand. Also, the black market and the reasons of emergence are discussed. Finally, conclusion and implication are explained at the end.

Keywords: Cement Industry, Saudi Arabia, Supply, Demand

1. Introduction

Cement industry in Saudi Arabia has been expanding along with the huge construction development during the last two decades. Since eighties, Arabian Gulf countries started to develop dramatically. This inevitably leads to an aggregate demand for cement as a primary input for construction. As demand in the region rises and supply is relatively inelastic on the short run, prices go up with limited supply. In addition, exporting for neighboring countries is a smart decision for Saudi cement companies. As Al Ali stated "cement exporting is relatively less risky than other foreign market entry/expansion strategies and usually requires less resource commitment. Consequently, it is an attractive method to serve foreign markets". (Al-Ali 61)

Total cement companies in Saudi Arabia are 13 which they are : Hail cement, Najran cement, City cement, Northern cement, Arabian cement, Yamamah cement, Saudi cement, Qassim cement, Southern cement, Yanbu cement, Eastern cement, Tabuk cement, and Al Jouf cement.

Cement industry, like other industries in Saudi Arabia and worldwide, is influenced by PEST, political/ legal, economic, social/ cultural and technological factors. The appealing growth of Saudi GDP (gross domestic products) justifies the governmental spending plan. Consequently, it gives attractive economic opportunities for industries especially construction input such as cement.

Moreover, with the increasing demand of the cement, technology assists companies to supply more in a reasonable period. Also, governmental regulations restrict companies with working in pre-set conditions that facilitate price stabilization. Finally, because of a particular style of home designs and laws, Saudi people are compelled to use cement in their construction.

This paper analyzes two frames for cement market in Saudi Arabia: The supply side of the cement market represented by the manufacturing companies and the demand side. Subsequently, conclusions as well as implications follow the analysis. In this paper, only three cement companies are selected as a sample of the sector: Southern Cement, Yamamah and Arabian Cement. These companies are selected due to their leading position in the market with efficient operations and outstanding profitability.

2. Literature Review

2.1 Cement Industry market in Saudi Arabia

Cement industry in Saudi Arabia is a rising business on the long run since "the government objective is to reach satisfactory development and growth". (Al Batel 27) When researchers analyze the supply and demand of cement industry in Saudi Arabia, researchers can find that "the market for the product-and consequently its production- was supply determined in the seventies but switched to being demand determined in eighties"(Am, and SS 37).

" Utilizing massive oil revenues, the Saudi government is investing heavily in healthcare, real estate, and education sectors. With plans to spend US\$385bn on construction projects until 2014, government spending remains the major catalyst for the cement sector in the near-term". (Al-Rajhi Capital , research department 2012). In fact, it is demand-determined during the last 5 years more than any past time ever.

2.2 Background of Cement Companies

2.2.1. Yamama Cement Company

The name "Yamama Saudi Cement Company" is derived from a famous and historical place in the central region. Yamama Cement was established in 1961 by Prince Mohammed Bin Saud Al-Kabeer, mainly to manufacture and trade in cement in Riyadh, the capital of KSA. Yamama which is a shareholding company, is regarded as the oldest cement company in the central region and the third of its kind in the kingdom. Currently, its paid up capital amounts to SR1350 million. (Yamamah website)

2.2.2. Southern Cement Company

Southern Province Cement Company was established by royal decree number M/3 dated 22/01/1978 as share holding company with capital of SR 700 million divided into 7 million shares, the value of each share was SR 100, the total share holders were 13,000. Southern Province Cement Company started with Jazan Cement Plant on 30/10/1981 with designed production capacity of 5,000 tons of clinker/day, and due to the continuous developing it reached 7,550 tons/day. (Southern Website).

2.2.3. Arabian cement Company

Arabian Cement Company is the first producer of cement in Saudi Arabia and the Arabian Gulf which was established in 1960 in Jeddah where the foundation stone laid by King Saud bin Abdul-Aziz (may Allah have mercy on him) in 1956. (Arabian website)

Analysis of Cement companies (Supply and Demand)

Researchers analyze the supply and demand of the cement industry represented in three companies (Yamamah, Southern, Arabian).

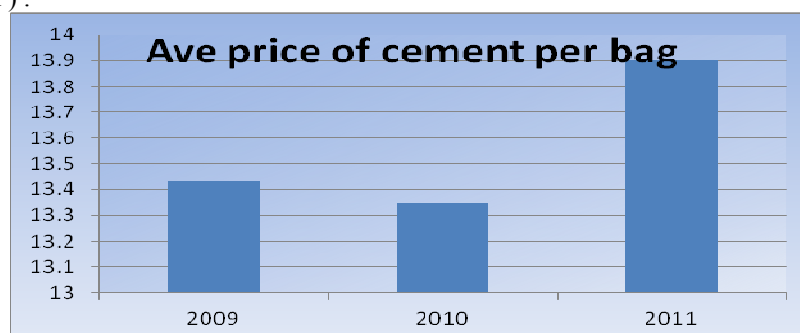


Figure 1: Average price of cement per bag

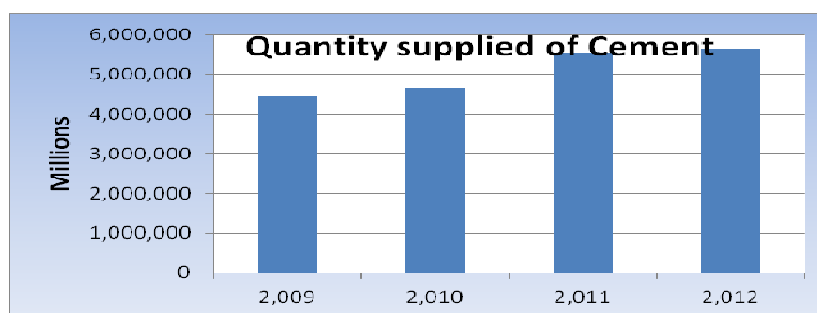


Figure 2: Quantity supplied of cement

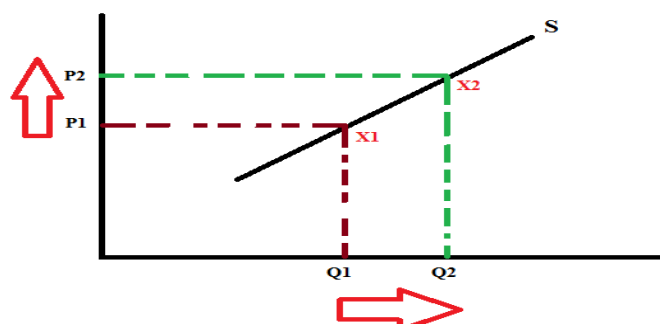


Figure 3: Effect of big demand of three companies on supply side

Figures 1 and 2 above both show average numbers of price and quantity supplied for the three cement

companies, researchers can conclude that there is a big demand. While the price increases, quantity supplied increases (producers produce more) as shown in figure 3. This can never happen unless there is an exceptionally high demand or the price is still at an attractive level.

In fact, a considerable portion of government spending was allocated to infrastructure, service sectors and income raise. "In 2013, Saudi Arabia will boost spending on education by 21% and will increase outlays on health care and social affairs by 16%, including the construction of 19 new hospitals." (Hatoum).

Many ministries started to get their standard-quality buildings such as public schools. "Up to 2001, 8 schools are built as a yearly average. However, during the last 8 years, 33 schools were

built as a yearly average. (Al Husain)" This indicates 312 % increase (a huge increase) in education infrastructure that requires much input of the cement and other construction materials. Ministry of health applies the same strategy. This governmental spending allocation promotes a continuous demand all over the country.

3. Methodology

The methodology implemented in this study is using a quantitative method using determinants of demands as well as determinants of supply to explain the effect of these on demand and supply according to the law of supply and the law of demand.

3.1 Determinants of demand

a. Price

The government restricts cement prices. So companies cannot raise prices based on the demand but they need to update any change to the government.

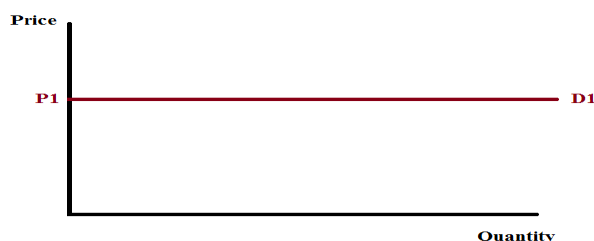


Figure 4: Effect of government restriction of cement price on price and quantity demanded

Since the government restricts the cement price. Demand is high because the price is at an attractive level beside the huge demand of government projects. So, the price is almost unchanged even if there is a shortage or surplus unless the government is informed about any change related to price. This is clearly shown in figure 4 above. So, if the quantity demanded increased, the price will remain almost unchanged or it will slightly increase. The effect of price restriction can be seen obviously in figure 5 below.

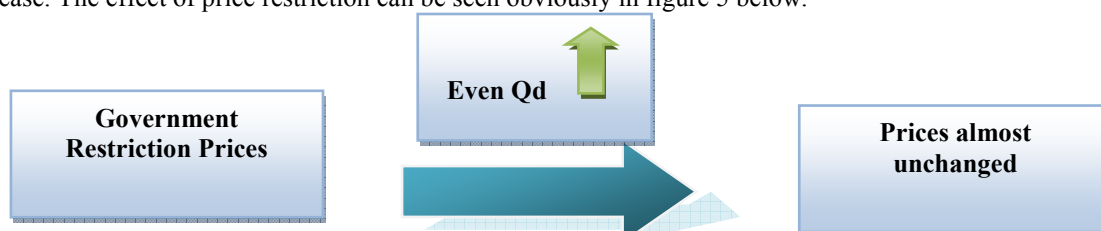


Figure 5: Effect of government restriction of cement price on price and quantity demanded

According the law of demand, when price is mostly constant, behavior of consumers is normally tending to increase in quantity demanded as shown in figure 6.

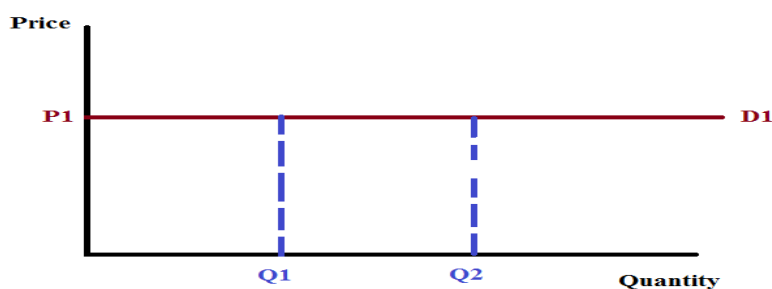


Figure 6: Behavior of consumer regard with constant price on quantity demanded

b. Substitute

In Saudi Arabia, there is no substitute for cement for construction. Because of our housing style and municipality regulations, we need cement in building as a raw material. We have no substitute to use and there is no choice. Although there is no substitute, there is only a slight increase in price. For example average price level in 2010 was at 13.35 per bag. Then there was not a big change in Price compared to demand increase. It went to 13.9 in 2011 (CDSI). Therefore, we can see the effect in figure 7 that is a shift to the right in demand curve.

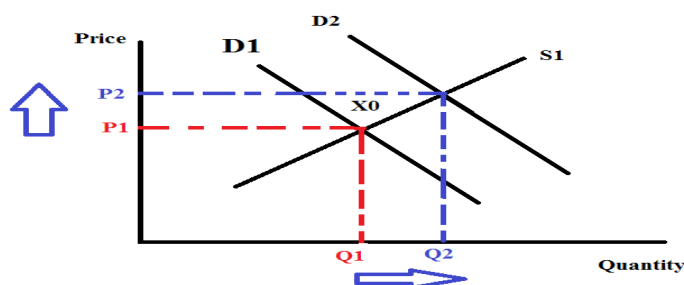


Figure 7: Substitute effect on quantity demanded and price

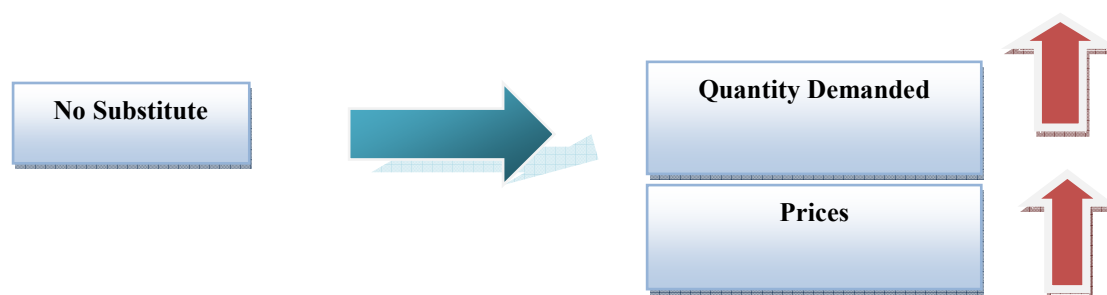


Figure 8: Substitute effect on quantity demanded and price

c. Complementary

Cement industry has so many complementary goods such as lands, iron and other construction raw materials. According the law of demand, when land and iron prices (complementary) rise dramatically, the demand for cement should decrease as the supply too. However, government huge demand adjusts the price. As you can see in the figure 9 below:

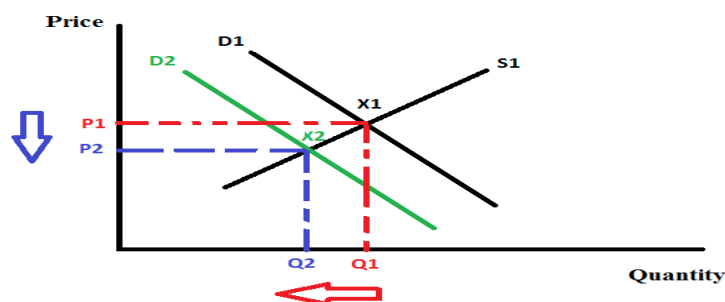


Figure 9 : Complementary effect on quantity demanded and price

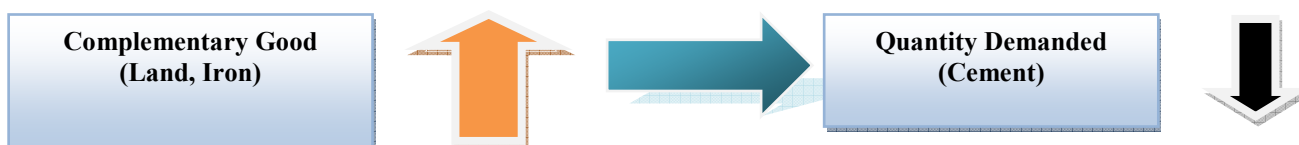


Figure 10: Complementary effect on quantity demanded and price

d. Income effect

In our case here, income effect plays a major role in demand. Here researchers will discuss how income effect plays its role in changing in the demand curve and price:

- **Governmental housing loans** were supported financially. Saudi REDF (Real Estate development fund) got a

leap in governmental funding through 2009 to 2011. Figure 11 shows the increase of loans in 2009 from around 8.176 to 9.528 billion (Real Estate development and Fund).



Figure 11: Government housing loan

Governmental loans are interest free and offered in long-term plan of installments. Moreover, installments are totally waived to individuals who pass away. Therefore, this can be an increase in the income of Saudi citizens. According to the demand theories, income increase leads to an increase in the quantity demanded since people can afford to build their own houses with the REDF loans. This is considered to be an act of demand-side policy that government motivates citizens to own a house even if they have no instant cash.

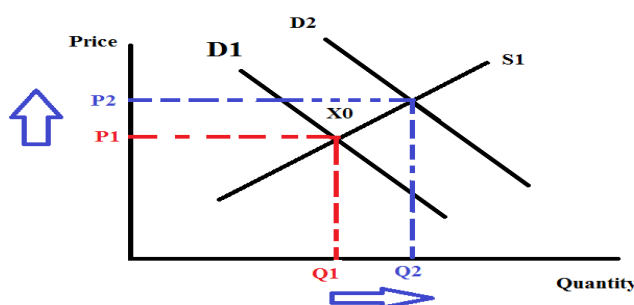


Figure 12: Income effect on quantity demanded and price

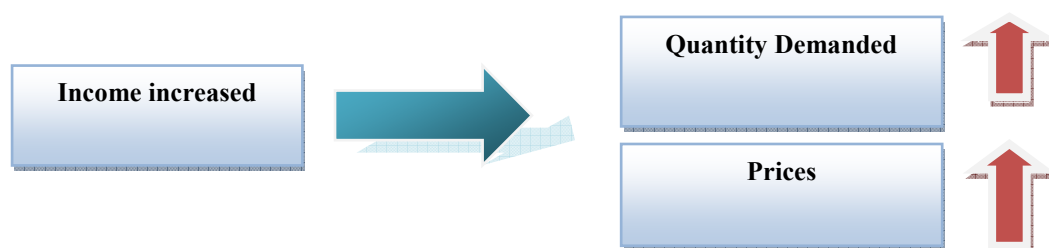


Figure 13: Income effect on quantity demanded and price

As we can see in figure 12 above the effect income can result to a shift to the right in demand curve leading to a slight increase in price too

3.2 Determinants of supply

- Price
- Change in input prices
- Change in technology
- Organizational change
- Supply-side policy (government policy)

On the supply-side policy, the government encourages firms to produce more cement to meet the increasing demand. Government takes the following steps:

- Financing firms with interest free loans to expand the operations. (CDSI)
- Motivating several new firms to enter the market.

In fact, the government aims to adjust the demand and supply of the cement. Demand obviously

exceeds supply with very apparent shortage. The government sets a plan on the middle and long run to adjust this by allowing new more local companies to enter the market. However, in the short run, government tends to adjust the demand with supply by restricting exporting for some periods of time as until demand and supply reach to an equilibrium point.

Those incentives have been helping several firms to enter the market in order to make worth profit for the firms. On the other hand, those incentives also aim to meet the increasing demand of the market. After two decades of depending on only the 8 cement companies, four cement firms entered the market during the last three years: "Hail Cement, 30 Nov 2010 – Najran Cement, 16 April 2012 - Almadinah Cement, 10Sept 2012 - Northern Cement, 05Feb 2013" (Tadawul).

3. Exporting: Ministry of commerce prohibits exporting cement when the local demand increases

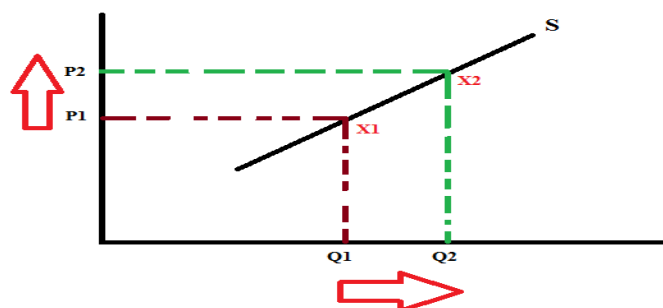


Figure 14: Determinant of supply and their effect on quantity supplied and price

We can summarize all the factors mentioned above about supply-side policy in figure 14 above. If the government is financing firms with interest free loans to expand the operations, motivate new firms to enter this industry and allows them to export their products, this will increase in quantity supplied and decrease the prices.

4. Black market of cement industry in Saudi Arabia

Cement industry in its nature is inelastic in supply side on the short run, since supplying more needs more lines. These new lines need technology, trained human resources, and more capital. Consequently, when there has been an increasing demand during the last 5 years, many intermediaries occurred in the market as traders. These traders constitute the actual sale points in the market. Some periods of the year, factories have shut down for maintenance. These are the times in which some considerable intermediaries stop selling (monopolizing) to increase the price. So the actual selling price of cement is different from the official price announced in CDSI (Central Department of statistics & Information). We have conducted a survey to find out the differences in price between the actual purchase execution and the announced price.

Table 1: Announced price of Cement

Year	Ave of Actual purchase price (Survey)	Ave of announced price
2009	16.1	13.43
2010	16.1	13.35
2011	16	13.9

Note: official announced price is taken from (Central Department of Statistics and information)

The table above shows the differences between the officially announced price of cement and that of black market.

4.1 Reasons of black market emergence

1. There is not an organized end-user market for cement (sale points for companies). (Yamamah)
2. Monopoly practiced by intermediaries and traders.

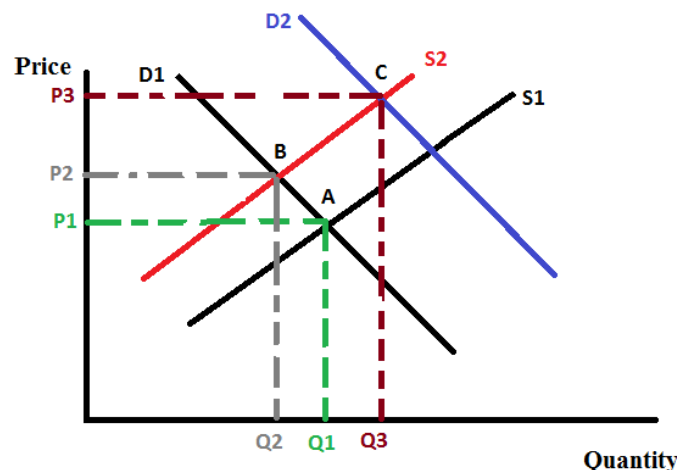
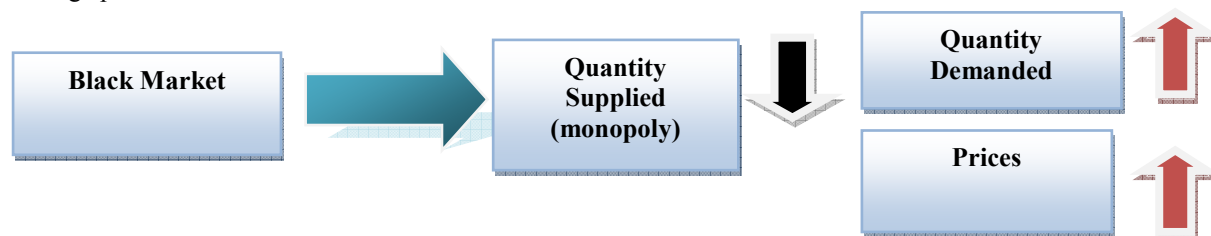


Figure 15: Black market and their effect on supply and demand chart

Unfortunately, the black market exists in cement industry because of the reasons mentioned above and Intermediaries' will store more quantity and will raise prices if there is a shortage as you can see in the figure 15 above. In our survey, 97.3 % of samples stated that they could not find cement to buy for two weeks as an average period.



5. Conclusion and Implications

Based on the analysis, cement industry in Saudi Arabia is a dramatically booming business, since determinants of demand are highly effective. Income effect influences the demand positively. There is no substitute for cement as raw material in construction. Moreover, it is an oligopoly market where market entry is restricted. Government spending is accelerating in a fast pace for the whole country infrastructure. In such a situation, cement price would boom to higher prices but the government has been taking steps to adjust demand and supply. It takes some steps such as, government has been encouraging new companies to enter the market. Also, price of cement has been set up by governmental regulations and cannot be changed except by an official agreement with the ministry of commerce. In addition, the government prevents exporting from time to another for adjusting price and quantity of cement in the local use. Nevertheless, black market occurs from intermediaries that take advantage of the chaotic environment of cement to achieve more profit. The high demand of cement tempts third parties (intermediaries) to store bags in order to monopolize the products.

Several optimum suggestions can be considered to create an ideal environment for the cement industry. Suggestions are summarized as follows:

1. Allowing more firms to have easier entry procedures and regulations.
2. Forcing the cement companies to start up enough sale points all over Saudi Arabia and selling it for the right price.
3. All companies send reports to the government at the beginning of each year showing their ability of quantity supply all year long. Therefore, government can decide if there is a need to temporarily import or not.

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